

REPLY COMMENTS TO ARRL ON PSHSB 17-344

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By:

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I am in opposition to Docket 16-239 RM-11708 and PSHSB 17-344, in their present form. Allowing wideband spectrum users to be able to operate carte blanche across all HF Amateur Radio bands will cause chaos for the existing narrowband and weak signal modes presently used on HF. I do agree that there is a place for greater flexibility in the types of emissions that may be transmitted by amateur stations, but the Amateur Radio HF spectrum is far too small to accommodate wideband stations to operate over the entire spectrum without some control.

In your own proceeding, Docket 16-239, you state that "The purpose of separating emission types into groups is to regulate the transmission of certain *inharmonious emission types to different segments of amateur service frequency bands*, while still allowing great flexibility in the types of emissions that may be transmitted by amateur stations." The allowing of wideband emissions over the entire amateur spectrum *without any inharmonious emission type separation* will create chaos to operators of the traditional and new narrow emission types, such as the weak signal modes, and especially to the weak signal mode operators of WSJT FT-8. Your own proceeding invalidates the premise that wideband emissions can be accommodated across the entire Amateur Radio spectrum. The recent FCC denial of the Lightspeed operations in bands adjacent to the GPS downlink frequencies due to the interference potential to the weak signal GPS operations is an example of the incompatibility of wideband and weak signal operations.

Some of the supporters of these FCC actions appear to be supporters of WINLINK and/or PACTOR-4 and are not necessarily Amateur Radio Operators. These supporters apparently want to use the Amateur Radio frequencies for onshore and offshore email and other internet uses. I can see a time where the Amateur Radio frequencies are used by wideband operations supporting video and streaming operations. The Amateur Radio Service was never meant to replace commercial (pay) services providing similar wideband services to offshore users.

In my career as an Electromagnetic Compatibility Engineer at the DoD Joint Spectrum Center, I was the contractor in charge of the Joint Spectrum Interference Resolution (JSIR) team. On numerous occasions, interference to US DoD operations was caused by incompatible emission types being operated on the same or close by frequencies. In my experience with the JSIR program, narrowband and wideband modes are not compatible. With the error correction available to wideband modes, the wideband modes will never notice or will ignore narrowband interference to their operation. The only way to determine the source of the interference was to go on-site and geolocate the offending transmitter.

I was an ARRL Official Observer and never purchased the PACTOR-4 type equipment due to the fact that it is a proprietary code. With the reduction of FCC Monitoring Stations, and a single HFDF center, how is the FCC Field Enforcement Division expected to enforce any operations using proprietary encoding? Will the FCC purchase PACTOR-4 equipment to monitor the possible commercial uses and determine interference sources?

Before a complete change in philosophy in allowing wideband operations everywhere in the Amateur Radio bands, I suggest that a wideband segment be provided where the wideband community can operate and **PROVE** that they can live with their own interference and coexist with the existing operational modes. Once this is accomplished then another RM can be developed opening wideband operations to other segments of the Amateur Radio spectrum. I believe that opening up the entire Amateur Radio HF spectrum at this time will be a disaster for the existing narrowband operators.

I propose that there be a segment of the Amateur Radio spectrum where wideband emissions are allowed, but not across the entire spectrum. A reasonable compromise would be to have a segment between the current CW/narrowband digital modes and the voice/image frequencies. For example, make 3600-3650 KHz open to wideband emissions as a test for a 1 year period to determine the actual interference-free operation as espoused by the PACTOR proponents.

I have been an ARRL member for over 40 years and totally disagree with the ARRL position on the proposed wideband emissions over the entire Amateur Radio HF bands.

Respectfully submitted,

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